

REMARKS

Status of the Claims

Claims 23-40 are pending in the application.

Claims 23-40 stand rejected.

The Rejection under 35 U.S.C. 112, Second Paragraph

The Examiner has rejected claims 23-40 as being indefinite. Applicants have amended claims 24-31 herein to change "the additive" to read --the chewing gum ingredient--. Applicants have amended claim 32 to delete the phrase "said ingredient being incorporated internally into said gum". Applicants submit that these amendments overcome the Examiner's basis for the rejections.

In view of the above applicants respectfully submit that the rejection of claims 23-40 under 35 U.S.C. 112, second paragraph should be withdrawn.

The First Rejection Under 35 U.S.C. 103(a).

The Examiner has rejected claims 23-31, under 35 U.S.C. 103(a) as being unpatentable over Cherukuri et al. (US 4,961,935) or Yatka et al. (WO 95/08926). The Examiner refers applicants to paragraph 3, Paper 13 and additionally states:

... the palatinit in Cherukuri et al. is incorporated internally as part of the chewing gum ingredient composition, which composition may or may not be coated. The isomalt in Yatka et al. may be in powder form, i.e., granules, and is part of the internal gum composition.

Applicants had responded to paragraph 3, Paper 13 in a response dated October 29, 2001. Concerning applicants' response the Examiner holds that:

Applicant's contention that Cherukuri et al. (col 13, lines 50-57 and Table 2) refers to crunch provided by a coating is ill founded and without merit. Cherukuri et al. (col.12, lines 8-22) clearly discloses that Palatinit bulking agent is part of an internal chewing gum "composition". Table 2 (Examples 6 and 7) shows that chewing gum compositions which include Palatinit as the bulking agent are crunchier than chewing gum compositions which including sorbitol or mannitol as the bulking agent. These chewing gum compositions may then be coated (col. 13, lines 58-60). Thus "crunch", a relative term without clear meaning in this art, is provided by the Palatinit in Cherukuri et al. Similarly since the powdered isomalt in Yatka et al. is composed of granules, which are part of the internal chewing gum composition therein, some "crunch" a relative term, is inherently provided thereby. Moreover, the word crunch is not a positive limitation of applicant's product claims.

Reconsideration and withdrawal is respectfully requested for the reasons as follow.

There is no teaching nor suggestion in Cherukuri et al. (US 4,961,935) of a chewing gum ingredient which is isomalt, which is granulated, which has a particle size greater than 50 mesh, and which has the property of providing crunch to a chewing gum. Cherukuri et al. teach chewing gum cores which are formulated with isomalt as the bulk sweetener. The isomalt is used to provide firmer texture and reduced moisture absorption properties to the gum core, properties which enable the gum core to be easily coated and thereby to provide a better coating, one wherein the coating has better crunch and crispness as compared with the crunch and crispness of a coated gum which does not contain isomalt in the core and is not as easily coated.

The question here appears to turn on whether or not Cherukuri et al. (US 4,961,935) teach that the inventive gum cores themselves, absent the confectionery coating, have crunch when chewed. The Examiner apparently holds that Cherukuri et al. teach that the inventive gum cores have a "crunch" when chewed, and that that property is due to the presence of the isomalt. Applicants had in a prior response pointed out that Cherukuri et al. teach that isomalt is used in gum cores to provide a firmer texture to the core which allows for easier coating and a crispier coating. The "crunch" or "crispness" of the coating was tested by Cherukuri et al. In the present action, the Examiner proposes that "applicants' position that Cherukuri et al. (col 13, lines 50-57 and Table 2) refers to crunch provided by a coating is ill founded and without merit" in that the Examiner holds that "Cherukuri et al. (col.12, lines 8-22) clearly discloses that Palatinit bulking agent is part of an internal chewing gum 'composition'. Table 2 (Examples 6 and 7) shows that chewing gum compositions which include Palatinit as the bulking agent are crunchier than chewing gum compositions which including sorbitol or mannitol as the bulking agent. These chewing gum compositions may then be coated (col. 13, lines 58-60)". Applicants again submit that a reading of the Cherukuri et al. reference shows the following facts, facts which rebut the Examiner's position.

Examples 1-4 at cols 11 and 12 demonstrate conventional chewing gum compositions. The degree of hardness is measured, and the firmness of the chewing gum, as determined by the hardness test, is compared and reported. Examples 5-7 at cols 12 and 13, demonstrate substantially anhydrous uncoated chewing gum centers. The degree of hardness is measured and again the firmness of the cores, absent coating, based on that result is reported as in Table 1 at col 13. These same Example 5-7 cores are then coated with a hard candy coating described as conventional. A hardness test is not conducted on these coated gums. These coated gums are tested for crunch. For this test an expert art panel is used to evaluate the crunch of the coated gums upon chewing. Table 2 at col 13 and the text at col 13 reports the crunch of the Palatinit containing coated gums as favorable compared to the comparative coated cores. In the succeeding paragraph Cherukuri et al. summarize with the statement that the gums of the invention are all firmer and easier to coat and that, although the coated gums are firmer in texture, they have an acceptable soft chew.

The sole disclosure of the property of "crunch" is, as applicants assert, found in the teaching of a coated gum core as shown in Table 2, coated gum cores 5-7. It was an

object of the Cherukuri et al. invention to provide a firm (and more moisture stable) gum core which of itself provides a better coating. There is no teaching that crunch is a part of the properties possessed by either the isomalt containing core, nor the comparative gum core, nor has the crunch of the cores been tested.

Subsequent to the above quoted statements by the Examiner the Examiner further holds that "Thus "crunch", a relative term without clear meaning in this art, is provided by the Palatinit in Cherukuri et al. Similarly since the powdered isomalt in Yatka et al. is composed of granules, which are part of the internal chewing gum composition therein, some "crunch" a relative term, is inherently provided thereby." It would appear from the Examiner's statements here that the Examiner proposes that one skilled in the art does not know what exactly what properties are possessed by a material described by the term crunch or even powder.

This statement that "crunch is a relative term without clear meaning in the art" is without foundation. In the present fact set it is clear that Cherukuri et al. had a clear understanding of the meaning of the term as did the expert art panel who applied an art test to evaluate the property. Applicants provide herein page 332 from "The American Heritage College Dictionary", Third Edition, Houghton Mifflin Company, New York, 1993 to show the common meaning of the term "crunch", which is the manner in which it is commonly understood by one skilled in the chewing gum art. Whereas the degree of crunch may vary whether or not a comestible possesses crunch is clearly understood by the expert in the art.

This statement by the Examiner in fact rebuts the Examiner's own position in support of *prima facie* obviousness. If one skilled in the art can not tell exactly what is conveyed by a reference teaching, if there is doubt as to what properties are possessed by the gum cores taught therein, and what properties are provided by the isomalt used therein or what properties are possessed by the isomalt used therein, then how can it be obvious as to what properties would be possessed by any isomalt product.

The Examiner has also cited Yatka et al. (WO 95/08926) in this matter. ("The isomalt in Yatka et al. may be in powder form, i.e., granules, and is part of the internal gum composition.", and, "... some "crunch" a relative term, is inherently provided thereby.") Applicants claim a granulated additive having a particle size greater than 50 mesh. The Examiner apparently cites Yatka et al. herein as providing this feature of the claimed invention. Applicants respectfully submit that this statement is also pure speculation on the part of the Examiner. There is no showing that the powdered crystalline isomalt used by Yatka et al. is in the form of, or contains, granules. Yatka et al. do not teach that the isomalt used therein is, or has, any granulated particles. A powder is not a granulate. Being in crystalline form does not render a powder into a granulate. Nowhere does Yatka et al. teach that powder has other than its common meaning.

The Examiner lastly holds that "the word crunch is not a positive limitation of applicant's product claims". Applicants do not see the point of this statement. The

claimed ingredient is a crunch providing ingredient. The art must show or suggest a crunch providing ingredient which consists essentially of isomalt, which is granulated and which has a particle size of greater than 50 mesh.

None of the cited primary references suggest a crystalline granulate isomalt having a particle size of greater than 50 mesh be used as a chewing gum ingredient to provide internal crunch to a gum. Wherein isomalt is used internally as a bulking agent in a chewing gum it is used in the form in which it is generally available, namely as a crystalline powder. There is no teaching, nor suggestion in any teaching, to the contrary.

In view of the above applicants respectfully submit that the rejection of claims 23-31 under 35 U.S.C. 103(a) should be withdrawn.

The Second Rejection Under 35 U.S.C. 103(a).

The Examiner has rejected claims 32-40, under 35 U.S.C. 103(a) as being unpatentable over Cherukuri et al. (US 4,961,935) or Yatka et al. (WO 95/08926) as above and further in view of Tanaka et al. (US 5,709,895). The Examiner refers applicants to paragraph 4, Paragraph No 13. The Examiner further states that "Although Tanaka et al. performs process steps not claimed by applicant, as applicant argues, applicants' claims are open ended and do not preclude such additional process steps". Applicants have amended claim 32 herein to limit the claimed process to consist essentially of the three, recited limiting steps. Reconsideration and withdrawal is respectfully requested for the reasons as follow.

Applicants teach and claim a process for the preparation of a granulated isomalt chewing gum ingredient for providing crunch internally to a chewing gum, wherein that process, as amended, consists essentially of the novel sequence of steps of heating isomalt at a temperature of 130°C or higher; cooling the isomalt to form a solid; and granulating the solid to a particle size greater than 50 mesh to provide the right texture modifying crunch additive.

Cherukuri et al. (US 4,961,935) and Yatka et al. (WO 95/08926) have been cited by the Examiner as primary references. Cherukuri et al. is detailed above. Cherukuri et al. do not teach any modification of the isomalt powder used therein. Yatka et al. is the only teaching which concerns modification of isomalt powder. Yatka et al. were chiefly concerned with encapsulating, agglomerating or absorbing the isomalt with another material to provide a controlled release product. Standard techniques were used to prepare the materials. In all cases the encapsulated material was ground to a powdered, coated sweetener or the powder was used to first form a syrup. Neither of these references suggest the claimed method.

The secondary reference, Tanaka et al., teaches a process for encapsulating a flavor which uses an encapsulating matrix composed of both a hydrogenated saccharide and a modified starch. This method by Tanaka et al. does not suggest the method taught and claimed by the applicants. Tanaka et al. blend materials to produce an encapsulate.

Required in that method are heating of the carbohydrate mix, a mixing stage for blending in a flavor, and a subsequent extrusion stage. Applicants claimed process does not have these required limitations. Applicants neither blend nor mix ingredients, nor heat and extrude. Applicants heat isomalt, neat or in a solution, to a temperature of 130°C or higher to remove moisture and/or melt the isomalt, cool the crystalline melt to form a solid isomalt without further processing and granulate the solid to provide the crunch additive of a size of greater than 50 mesh.

Tanaka et al. do not expressly nor inherently suggest applicants' claimed invention as amended herein. The primary references which teach isomalt do not suggest it.

In view of the above applicants respectfully submit that the rejection of claims 32-40 under 35 U.S.C. 103(a) should be withdrawn.

Conclusion

In view of the above applicants believe this application is in condition for allowance. Favorable action is solicited. If any questions remain, the resolution of which would be advanced by conference (telephonic or personal) with applicants' agent, the Examiner is invited to contact said agent at the telephone or the fax number noted below.

Respectfully submitted,
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crud ¹ adj. -²est. Slang. 1. Miserable or wretched. 2. Shabby or cheap: a crummy little rowboat. [Prob. < *cruma*.] crump (krüm) v. crumped, crump^{ing}, crumps. — tr. 1. To crush or crunch with the teeth. 2. To strike heavily with a crunching sound. — intr. To make a crunching sound, esp. in walking over snow. — n. 1.a. A crunching sound. b. The sound of an exploding shell. 2. A heavy blow. [imit.] crum^{pet} (krüm'pit) n. A small flat round of bread, baked on a griddle and usu. served toasted. [Poss. < ME *crompid* (*cake*), curled (*cake*), prob. p.p. of *crompen*, to curl up, prob. < *crumb*, *crump*, *crooked* < OE.] crum^{ple} (krüm'pəl) v. -pled, -pling, -ples. — tr. 1. To crush together or press into wrinkles; rumple. 2. To cause to fall apart. — intr. 1. To become wrinkled. 2. To fall apart; collapse. — n. An irregular fold, crease, or wrinkle. [ME *crumple*, prob. freq. of *crompen*, to curl up. See CRUMPT.] — crum^{ply} adj.

crunch (krünch) v. crunched, crunch^{ing}, crunch^{es}. — tr. 1. To chew with a noisy crackling sound. 2. To crush, grind, or tread noisily. 3. Slang. To perform operations on; manipulate or process (numerical or mathematical data). — intr. 1. To chew noisily with a crackling sound. 2. To move with a crushing sound. 3. To produce or emit a crushing sound. — n. 1. The act or sound of crunching. 2.a. A decisive confrontation. b. A critical moment or situation. [Alteration of *craunch*, poss. of imit. orig.] — crunch^a-ble adj.

crunch^{er} (krünch'ər) n. Slang. A finishing or decisive blow.

crunch^y (krün'chē) adj. -^{er}, -^{est}. Making a crunching or crackling sound, as when chewed; crisp.

crup^{per} (krüp'ər) n. 1. A leather strap looped under a horse's tail and attached to a harness or saddle to keep it from slipping forward. 2. The rump of a horse; the croup. [ME *crouper* < OFr. *cropiere* < *croupe*, rump. See CROUP.]

cru^{ral} (krörl'əl) adj. Of or relating to the leg, shank, or thigh. [Lat. *cruralis* < *crus*, *cruris*, leg.]

crus^{ade} (kröö-säd') n. 1. Often Crusade. Any of the military expeditions undertaken by European Christians in the 11th, 12th, and 13th centuries to recover the Holy Land from the Muslims. 2. A holy war undertaken with papal sanction. 3. A vigorous concerted movement for a cause or against an abuse. [Fr. *croisade* and Sp. *crusada*, both ult. < Lat. *crux*, cross.] — crus^a-sade' v. — crus^a-sader' n.

crus^{sa}-do (kröö-sä'dō) also crus^{za}-do (-zä'-dō) n., pl. -does or -dos. An old Portuguese coin of gold or silver having a cross pictured on the reverse. [Port. < p.p. of *cruzar*, to mark with a cross < *crux*, cross < Lat. *crux*, cross.]

cruse (krööz, kröös) n. 1. A small earthenware container for holding liquids. [ME *crouse*, perh. < MDu. *cruse*, pot.]

crush (krüs) v. crushed, crush^{ing}, crush^{es}. — tr. 1. To press between opposing bodies so as to break or injure. 2. To break, pound, or grind (stone or ore, for example) into small fragments or powder. 3. To put down; subdue. 4. To overwhelm or oppress severely. 5. To crumple or rumple. 6. To hug, esp. with great force. 7. To press upon, shove, or crowd. 8. To extract or obtain by pressing or squeezing. 9. Archaic. To drink; quaff. — intr. 1. To be or become crushed. 2. To proceed or move by crowding or pressing. — n. 1. The act of crushing; extreme pressure. 2. The state of being crushed. 3. A great crowd. 4. A substance prepared by or as if by crushing, esp. a fruit drink. 5. Informal. a. A usu. temporary infatuation. b. The object of such an infatuation. 6. A decisive or critical moment or situation. 7. The process of stamping or crushing grapes for wine. [ME *crusheen* < OFr. *croisir*, of Gmc. orig.] — crush^a-ble adj. — crush^{er} n. — crush^{proof} (-prüf') adj.

crushed (krüsht) adj. Treated so as to have a permanently crinkled or rumpled appearance. Used of a fabric.

crust (krüst) n. 1.a. The hard outer portion or surface area of bread. b. A piece of bread consisting mostly of the crust. c. A hard and dry piece of bread. 2. A pastry shell, as of a pie.

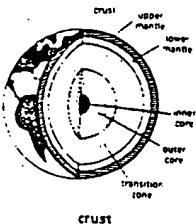
3. A hard, crisp covering or surface. 4. A hard deposit formed on the interior of a wine bottle as the wine matures. 5. Geol.

6. The exterior portion of the earth that lies above the Mohorovičić discontinuity. b. The outermost solid layer of a planet or moon. 6. The hard outer covering of certain plants and animals. 7. Pathol. An outer layer formed by the drying of a bodily exudate such as blood; a scab. 8. Informal. Insolence; audacity; gall. — v. crust^{ed}, crust^{ing}, crusts.

— tr. 1. To cover with a crust. 2. To form into a crust. — intr. 1. To become covered with a crust. 2. To harden into a crust. [ME *cruste* < OFr. *crouste* < Lat. *crusta*. See *kreus*-; — crust^{less} adj.]

crus^{ta}-cean (krü-stä'shan) n. Any of various predominantly aquatic arthropods of the class Crustacea, including lobsters and crabs, characteristically having a segmented body, a chitinous exoskeleton, and paired jointed limbs. [< NLat. *Crustacea*, class name, neut. pl. of *crustaceus*, hard-shelled < Lat.

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c. 1817 French crust holder
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